Biology 55:437) and reduces the proliferation and IFN-γ production (a Th1 cytokine) of peripheral blood T-cells and T-cell clones (Taga *et al.* (1993) *Journal of Immunology 150:4754*; de Waal Malefyt *et al.* (1993) *Journal of Immunology 150:4754*). RCC supernatants increase the production of IL-10 from macrophages (Ménétrier-Caux *et al.* (1999) *British Journal of Cancer 79:119*). The Th2 cytokines, IL-10 and IL-4, are also produced by RCC TIL (Schoof *et al.* (1993) *Cellular Immunology 150:114*; Wang *et al.* (1995) *International Journal of Cancer 61:780*; Maeurer *et al.* (1995) *Cancer Immunology, Immunotherapy 41:111*). IL-10 serum levels are increased in sera of subjects with solid tumors and correlates with poor responsiveness and decreased survival (De Vita *et al.* (2000) *Oncology Reports 7:357*). Increased serum concentrations of IL-10 can be a predictor of unfavorable outcome in RCC (Elsässer-Beile *et al.* (1999) *Cancer Immunology, Immunotherapy 48:204*). RCC cells also produce other immunosuppressive cytokines, such as IL-6, IL-8 and TGF-β.

IN THE CLAIMS:

Please replace claim 47 with the following;

47. (Amended) A process for producing compositions that have an enhanced population of activated polyclonal Th1 memory cells, comprising:

(a) collecting a sample of mononuclear cells from a subject;

(b) expanding and differentiating the mononuclear cells by repeatedly activating T-cells in the mononuclear cell sample in the absence of exogenous growth or differentiation factors, thereby producing a highly pure population of activated polyclonal Th1 memory cells.

REMARKS

Any fees that may be due in connection with filing this paper, or with this application during its entire pendency, may be charged to Deposit Account No. 50—1213.

The specification and the claims are amended to correct obvious typographical, spelling, and grammatical errors.

No new matter has been added.

Entry of this amendment is respectfully requested.

* * *

Respectfully submitted,
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Micheal L. Gruenberg

Serial No.: 10/071,016

Filed: February 7, 2002

For: **Th1-CELL ADOPTIVE IMMUNOTHERAPY**

Art Unit: 1636

Examiner: Unassigned

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ATTACHMENT TO THE PRELIMINARY AMENDMENT MARKED UP PARAGRAPHS AND CLAIMS (37 CFR §1.121)

IN THE SPECIFICATION:

Please amend the paragraph on page 22, lines 3-28, as follows;

Tumor cells are known to produce a variety of Th2 cytokines (Chen *et al.* (1994) *International Journal of Cancer 56:755*; Asselin-Paturel *et al.* (1998) *Journal of Cancer 77:7*; Smith *et al.* (1994) *American Journal of Pathology 145:18*; Vowels *et al.* (1994) *Journal of Investigative Dermatology 103:669*; Nitta *et al.* (1994) *Brain Research 649:122*). Tumor infiltrating cells also produce Th2 cytokines (Roussel *et al.* (1996) *Clinical and Experimental Immunology 105:344*). Freshly isolated RCC cells produce IL-10 (Nakagomi *et al.* (1995) *International Journal of Cancer 63:366*; Wang *et al.* (1995) *International Journal of Cancer 61:780*), a Th2 cytokine. IL-10 is a potent inhibitor of tumor cytotoxicity (Nabioullin *et al.* (1994)*Journal of Leukocyte Biology 55:437*) and reduces the proliferation and IFN-γ[_]_production (a Th1 cytokine) of peripheral blood T-cells and T-cell clones (Taga *et al.* (1993) *Journal of Immunology 150:4754*; de Waal Malefyt *et al.* (1993) *Journal of Immunology 150:4754*). RCC supernatants increase the production of IL-10 from macrophages (Ménétrier-Caux *et al.* (1999) *British Journal of Cancer 79:119*). The Th2 cytokines, IL-10 and IL-4, are also produced by RCC TIL (Schoof *et al.* (1993) *Cellular Immunology 150:114*; Wang *et al.* (1995) *International Journal*

of Cancer 61:780; Maeurer *et al.* (1995) *Cancer Immunology, Immunotherapy 41:111*). IL-10 serum levels are increased in sera of subjects with solid tumors and correlates with poor responsiveness and decreased survival (De Vita *et al.* (2000) *Oncology Reports 7:357*). Increased serum concentrations of IL-10 can be a predictor of unfavorable outcome in RCC (Elsässer-Beile *et al.* (1999) *Cancer Immunology, Immunotherapy 48:204*). RCC cells also produce other immunosuppressive cytokines, such as IL-6, IL-8 and TGF-β.

IN THE CLAIMS:

Please amend claim 47 as follows;

47. (Amended) A process for producing compositions that have an enhanced population of activated polyclonal Th1 memory cells, comprising:

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* * *

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